ON MERIUM AND SOME BLUE CALLIDIUM (COL.).

BY CHAS. SCHAEFFER,

BROOKLYN, N. Y.

Merium proteus Kirby.

Merium bifossulatum Casey, Mem. Col., III, 1912, p. 286.

The characters given in the description of *bifossulatum* to separate it from *proteus* do not hold good. I have *proteus* from Hudson Bay Territory and a moderately large series from Alaska collected some years ago by my brother. In these the coloration and especially the sculpture of prothorax and elytra differ greatly. The color of prothorax may be bluish or greenish and the elytra has either a bluish or greenish tint or is entirely pale without any metallic reflection. The sculpture of prothorax of the females is extremely variable; not two specimens of my series are alike. One specimen has the disk of prothorax entirely smooth except at apex, with one puncture on each side of the median line; another specimen, the extreme of my series, is rather heavily punctured on each side of the median line from apex to nearly to base, defining not only a broad, smooth median line but also a smooth line on each side near the rugosely punctate lateral area. The "subtransverse concavities" on the posterior part of prothorax may be more or less distinct or absent and more or less heavily punctured or smooth. The females seem to be much more variable than the males; the latter, at least in my series, show very little variation in regard to the sculpture of prothorax. The median part of prothorax is smooth and either with a few or without any punctures; the antennæ are a little longer and slightly stouter, the femora a little more clavate and the lateral area slightly more finely sculptured in the male than in the female. The sculpture of elytra in both sexes is also variable especially in about apical half.

Callidium antennatum Newm.

The form of prothorax differs much in this species, also the length of antennæ. The sculpture of elytra varies to some extent and the raised lines may be present or not. A single specimen from Oregon does not differ from typical *antennatum*.

Callidium antennatum hesperum Casey.

This variety or subspecies is separated form typical *antennatum* in having shorter antennæ, the elytra more shining and deeply and coarsely punctured. The length of antennæ varies in typical *antennatum*; they may be "fully as long as the body" or shorter; however, I have a male from Eldridge Co., Cal., which has the antennæ fully as long as the body. The sculpture of elytra of the California specimens of this form which I have seen differs very much from those of typical *antennatum*. Specimens from Colorado in Mr. Leng's collection have the elytra less coarsely punctured and a little less shining than typical *hesperum* and differ very little from certain specimens of *antennatum*.

Callidium schotti new species.

Oblong, subopaque, dark blue, outer joints of antennæ, palpi and tarsi black. Head coarsely, moderately closely punctate; antennæ reaching beyond middle of elytra in the male, in the female to about middle of elytra. Prothorax transverse; sides arcuate and rather feebly narrowing towards apex, strongly narrowing from a little below middle to base; the lateral area on each side densely rugosely punctate and opaque in the male or less coarsely and a little more closely punctate than at middle in the female; the median part slightly more shining and with rather coarse punctures. Elytra oblong, sides nearly parallel, apices obliquely rounded; surface more coarsely and deeply punctured than in *antennatum*. Prosternum a little more coarsely sculptured than in *antennatum*. Length 12.5 mm.

Huntington, Long Isld. (Schott), North Carolina (Leng). The types, male and female from Long Island in the Museum collection, paratypes in the collection of Chas. W. Leng.

This distinct species looks superficially like *antennatum* but has shorter antennæ, and in the male, the line separating the lateral area from the median part less distinct and less strongly sinuate, the median part shining and coarsely and moderately closely punctate, the femora, especially the posterior one, more abruptly dilated with the club rather shorter and the hind tibiæ a little more curved; in the female the prothorax is more closely punctate than in the male, and the line separating the lateral area scarcely evident. While this species is a little more shining than *antennatum*, it is much less shining than *violaceum* (*janthinum*), *frigidum* and *californicum*.

Callidium violaceum Linn.

C. janthinum Lec. Journ. Acad. Nat. Sciences, Phila., ser. 2, Vol. II, p. 34.

Leconte in his remarks following the description of *C. janthinum* says that this and *antennatum* differ from the European *violaceum,* but I am unable to see any difference between two European specimens of *violaceum* and a series of American specimens of *janthinum.*

The long series before me, about forty specimens, loaned me by Messrs. Davis, Frost, Leng, Shoemaker and Schott show great variation in form as well as sculpture of prothorax. The prothorax in some specimens is rather broad, in others small; the sides broadly rounded, in others subangulate; the lateral area may be more or less coarsely and rugosely punctate or more or less distinctly granulate. The color of elytra may be violaceous, dark blue or greenish blue.

This species has longer and less suddenly clubbed femora than any other species.

Messrs. Davis and Shoemaker collected a large number of specimens at Whiteface Mt., N. Y.; also a few at Rockaway Beach, Long Island. A single specimen in the Museum collection is from Brooklyn, N. Y. Mr. Frost has taken this species at Framingham, Mass.; also at Paris, Maine, and specimens from Maine and Quebec are in Mr. Davis's collection. Mr. Leng has specimens from Vermont and one from Texas, which latter locality, however, is evidently a mistake. A single specimen from Stephenville, Newfoundland, collected by G. P. Engelhardt, is in the Museum collection.

Callidium texanum new species.

Similar in form to *violaceum* (*janthinum*); color dark blue, antennæ and under side black or piceous with scarcely a bluish tint; femora and tibiæ more or less bluish. Head coarsely and subconfluently punctate; antennæ reaching to about middle or a little beyond middle of elytra and nearly similar in both sexes, the joints a little stouter and the last four a little longer in the male than those of the female. Prothorax transverse; sides gradually, arcuately narrowing from a little behind middle to apex, more strongly narrowing to base; surface coarsely and closely punctate at middle, at sides more finely and subrugosely punctate in the male, in the female the punctures at sides are coarser than in the male, but still smaller than at middle. Scutellum scarcely transverse and rather rugosely punctate. Elytra about two and one half times as long as prothorax; sides parallel; apices broadly obliquely rounded; surface coarsely and confluently punctate, the punctures less close near base. Prosternum coarsely punctate in the male, sparsely punctate and shining in the female; intercoxal process rather coarsely, transversely strigose. Length 10 mm.

Texas. Types, male and female in the Museum collection, paratypes in collection of Chas. W. Leng and Wm. T. Davis.

This species differs from *violaceum* in generally smaller size, different sculpture of prothorax, shorter antennæ and femora and more coarsely confluently punctate elytra. From *frigidum* it differs in being a little more depressed, less shining and male antennæ shorter and a little stouter, the posterior femora of the male more distinctly curved, the lateral margin of elytra narrowly reflexed and surface more densely punctate, the scutellum is apparently more transverse and may be more or less concave or not.

A single specimen in not very good condition from Ohio in the collection of the late Ottomar Dietz agrees pretty well with the specimens from Texas, except that the median part of prothorax is shining with the coarse punctures very well separated. I have placed this specimen for the present with this species as *violaceum* and especially *frigidum* exhibit great variation in punctuation of the prothorax.

Callidium frigidum Casey.

This species was described from the female. The male differs very little from the female except as usual in stronger clavate femora, longer and stouter antennæ, more finely rugose and somewhat opaque lateral area of prothorax and somewhat coarsely and moderately closely punctate prosternum. The prothorax in this species is variable as in *violaceum* but not so much in form as in punctuation. Mr. Frost has loaned me the two extremes of a series in his collection of which one has the prothorax coarsely and subconfluently punctate with a narrow smooth line at middle and the other specimen has the median part smooth and shining with scarcely any punctures.

Numerous specimens of this species were taken by Messrs. Engelhardt and Shoemaker in the show window of a rustic furniture store in Fulton Street, New York City; Mr. Frost has taken this species in Paris, Maine, and Mr. Leng has specimens in his collection from New York, Massachusetts, and Bangor, Maine. The type of this species came from Canada.

All the available records show that this species breeds in Cedar.

Callidium californicum Casey.

The description of this species was drawn from a male. A female in my collection from Fresno Co., Cal., agrees pretty well with the

description except that the antennæ are shorter and the sculpture of prosternum is similar to that of the female of *frigidum*. It is nearest allied to *frigidum*, but the lateral area of prothorax is less coarsely sculptured and the lateral margin of elytra scarcely at all reflexed.

Callidium lacustre Casey.

This species was described from a single specimen, a female, from Bayfield, Wisconsin. It is unknown to me, at least, a single specimen which I refer doubtfully to this species has the prothorax below distinctly metallic blue and the sides of prothorax are not subangulate, but rather broadly rounded. However, in not fully developed specimens the underside usually shows scarcely a sign of metallic luster and as shown above the form of prothorax is more or less variable. The specimen in question looks superficially like a small *violaceum* but the sculpture of prothorax is different and the hind femora are shorter and more suddenly clubbed than in that species; it is, however, more closely related to *frigidum* but has longer antennal joints than that species.

COLLECTING BEES IN SOUTHERN TEXAS.

By Wilmatte P. Cockerell,

Boulder, Colorado.

There are only two seasons in Colorado, the pessimists say, summer and winter; and even the greatest admirer of Colorado weather must wish that spring, always late in coming, was not a succession of frosts and snowstorms. So it was with a distinct feeling of pleasure that I left Boulder, Colorado, the last day of March, to spend a few days in San Benito, Texas, a small town near the Mexican border.

The maples were in blossom in Boulder, the catkins of the willows were still in their smallest "pussy" state; sheltered by rocks on warm hill slopes a few pasque flowers and spring daisies (*Townsendia*) were blossoming, and honey bees and a few venturous *Andrena* flew about—signs that spring might come, indeed, though as I write this near the tenth of May there are still no leaves on the trees, and no wild bees flying. Kansas was weeks ahead, with blossoming coverts